

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in *Achillea millefolium*

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
0	SPATHULENOL	Plant		495.0	2.658868354096619	--
53	LINALOOL	Leaf	1.0	4000.0	2.122508536493081	--
0	LAVANDULOL	Leaf	1.0	15.0	1.7320504652833757	--
0	CIS-JASMONE	Leaf	2.0	125.0	1.7044539014540394	--
1	TRANS-CARVEOL	Plant		150.0	1.4141140551271352	--
20	ALPHA-BISABOLOL	Leaf	1.0	915.0	1.264865272094972	--
0	PROTEIN	Seed	286000.0	369000.0	1.2027089985205746	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
1	COPAENE	Leaf	1.5	60.0	1.1888404716143406	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	CIS-SABINOL	Plant		100.0	1.0	--
0	CIS-NEROLIDOL	Plant		230.0	1.0	--
0	CIS-CARVEOL	Plant		200.0	1.0	--
1	ALLO-OCIMENE	Leaf	4.0	140.0	1.0	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
13	BETA-PINENE	Leaf	1.0	720.0	0.6328642794210592	--
16	P-CYMENE	Leaf	9.0	1185.0	0.584380733883737	--
5	SABINENE	Leaf	1.0	1225.0	0.5192871434052357	--
0	FIBER(DIETARY)	Plant		412000.0	0.5188999674765548	--
0	CARBOHYDRATES	Plant	133104.0	752000.0	0.5125462432567227	--
0	EO	Leaf	250.0	16000.0	0.3927378316881657	--
0	FAT	Seed	223000.0	334000.0	0.3614060995374496	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
4	TIN	Plant	5.0	26.0	0.34911685139896836	--
11	GAMMA-TERPINENE	Leaf	9.0	370.0	0.34147926512769305	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	EO	Plant	177.0	14000.0	0.3238465858545322	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
13	ALPHA-TERPINENE	Leaf	2.0	1120.0	0.2663807470003411	--
0	WATER	Plant		823000.0	0.22291061491730124	--
9	CAMPHENENE	Leaf	2.0	600.0	0.03409920562522311	--
3	ALPHA-CADINOL	Leaf	1.0	15.0	0.03356316627597684	--
35	BORNEOL	Leaf	6.0	275.0	-0.1351054728581718	--
112	ASCORBIC-ACID	Leaf	580.0	3100.0	-0.15627959906914124	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
28	ALPHA-PINENE	Leaf	1.0	1000.0	-0.15961997585151536	--
15	FIBER	Plant	69000.0	201000.0	-0.16122268403058113	--
22	MYRCENE	Leaf	0.5	20.0	-0.1654584943659963	--
9	TERPINOLENE	Leaf	1.0	50.0	-0.1684008925639172	--
0	FAT	Plant	7080.0	40000.0	-0.1714507664609065	--
41	CAMPHOR	Leaf	20.0	2880.0	-0.18433975802654748	--
23	TERPINEN-4-OL	Leaf	3.0	175.0	-0.24039913557404782	--
0	EO	Flower	700.0	5000.0	-0.256861435811866	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
60	LIMONENE	Leaf	1.0	170.0	-0.268944101986277	--
0	BETA-CUBEBENE	Leaf	1.0	15.0	-0.27140166674948796	--
14	POTASSIUM	Plant	3151.0	17800.0	-0.278763301762186	--
0	CIS-SABINENE-HYDRATE	Leaf	1.0	80.0	-0.2862032724587523	--
1	SODIUM	Plant	15.0	82.0	-0.2995388449907829	--
0	BETA-CARYOPHYLLENE	Leaf	1.0	65.0	-0.303004238741691	--
4	PHOSPHORUS	Plant	522.0	2950.0	-0.3068982377399405	--
67	1,8-CINEOLE	Leaf	24.0	1680.0	-0.31413337784745815	--
60	SELENIUM	Plant	0.3	1.6	-0.35611748372726487	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	KILOCALORIES	Plant		2900.0	-0.36931512722389037	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
2	HUMULENE	Leaf	0.5	22.0	-0.3745832187878271	--
2	COBALT	Plant	0.6	3.1	-0.37614265145342984	--
0	ASH	Plant	17700.0	100000.0	-0.3796129196407384	--
15	ASCARIDOLE	Leaf	120.0	6600.0	-0.3837260705884196	--
13	GERANIAL	Leaf	1.0	50.0	-0.3978078018016716	--
15	RIBOFLAVIN	Plant	1.0	5.6	-0.40499841324824026	--
71	THYMOL	Leaf	1.0	15.0	-0.41187649807173515	--
9	DELTA-CADINENE	Leaf	0.2	8.0	-0.4292576505663304	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
112	ASCORBIC-ACID	Plant	119.0	672.0	-0.4359276103428388	--
12	BORNYL-ACETATE	Plant		50.0	-0.43702890811674244	--
23	ALPHA-TERPINEOL	Leaf	1.0	80.0	-0.4498172854768475	--
7	ISOBORNEOL	Leaf	5.0	320.0	-0.49513094589241385	--
6	ALPHA-THUJONE	Leaf	3.0	240.0	-0.5168544216563907	--
4	SILICON	Plant	1.0	4.5	-0.5190064670266766	--
0	T-CADINOL	Leaf	1.0	15.0	-0.5225815390117998	--
5	GERANYL-ACETATE	Plant		36.0	-0.5241410325713916	--
28	CALCIUM	Plant	1535.0	8670.0	-0.5262108144941796	--
0	PROTEIN	Plant	19116.0	108000.0	-0.5364847835043116	--
5	NERYL-ACETATE	Plant		28.0	-0.5370290118452437	--
31	CARYOPHYLLENE	Leaf	4.0	160.0	-0.5782062507598946	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
5	BETA-THUJONE	Leaf	1.0	30.0	-0.5791445507936085	--
24	CHROMIUM	Plant	0.4	2.5	-0.6300345087929166	--
35	TANNIN	Plant	28000.0	40000.0	-0.6370616203493836	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	FIBER(CRUIDE)	Plant		69000.0	-0.6486558303247424	--
14	MANGANESE	Plant	1.0	5.0	-0.6590690061822261	--
65	MAGNESIUM	Plant	340.0	1920.0	-0.6662824225194472	--
5	ALUMINUM	Plant	6.0	34.0	-0.6894552686751528	--
0	TRICYCLENE	Leaf	0.6	27.0	-0.8389074385035388	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	RESIN	Plant		6000.0	-0.8622069963910537	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
10	CUMINALDEHYDE	Leaf	0.3	11.0	-0.8843635097531161	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	COUMARINS	Plant		3500.0	-1.0	Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.
26	PHENOL	Plant		155.0	-1.0	--
0	BETA-CARYOPHYLLENE-OXIDE	Leaf	1.0	30.0	-1.0	--
0	ARTEMISIATRIENE	Leaf	1.0	65.0	-1.414213562373094	--
20	CHOLINE	Plant				Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in <i>Achillea millefolium</i> L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
37	CARVACROL	Leaf				--
1	ACONITIC-ACID	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
7	SUCCINIC-ACID	Plant				--
1	FURFURYL-ALCOHOL	Plant				--
2	GERMACRENE-D	Leaf				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
14	BETAINE	Plant				Wealth of India.
63	MENTHOL	Plant				--
0	ALPHA-THUJENE	Leaf				--
24	VANILLIC-ACID	Plant				Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in <i>Achillea millefolium</i> L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
44	QUERCITRIN	Plant				--
0	HYDROXYACHILLIN	Plant				Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
0	3-OXAGUAIANOLIDE	Plant				--
5	SAPONINS	Leaf				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
2	DULCITOL	Plant				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
4	COSMOIIN	Plant				Weath of India.
0	CHAMAZULENE-CARBOXYLIC-ACID	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
2	CAPRYLIC-ACID-METHYL-ESTER	Plant				Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in <i>Achillea millefolium</i> L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
2	ACHILLIN	Plant				--
12	STIGMASTEROL	Plant				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	MATRICIN	Plant		0.0		Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.
7	LUTEOLIN-7-GLUCOSIDE	Plant				--
6	FURFURAL	Plant				--
0	BETA-SITOSTEROL-ACETATE	Plant				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
2	UNDECYLENIC-ACID-METHYL-ESTER	Plant				Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in <i>Achillea millefolium</i> L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
0	QUERCETIN-GLYCOSIDE	Plant				--
0	2-PENTYL-5-PROPYLRESORCINOL	Plant		70.0		--
12	PYROCATECHOL	Plant				Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in <i>Achillea millefolium</i> L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
18	OLEIC-ACID	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	ARTEMITIN	Plant				Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
0	TRICOSANE	Plant				--
10	CHAMAZULENE	Plant	0.0	4845.0		--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	CAPRIC-ACID-METHYL-ESTER	Plant				Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in <i>Achillea millefolium</i> L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
0	ACHILLINEIN	Plant				Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
6	STACHYDRINE	Plant				--
0	ARTEMISIA-KETONE	Leaf				--
0	MANDELONITRILE-GLUCOSIDE	Plant				Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in <i>Achillea millefolium</i> L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
78	LUTEOLIN	Plant				Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in <i>Achillea millefolium</i> L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
13	FORMIC-ACID	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
47	BETA-SITOSTEROL	Plant				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
8	INOSITOL	Plant				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
11	ALPHA-PHELLANDRENE	Leaf				--
0	TRANS-TRANS-FARNESOL	Plant		160.0		--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
176	QUERCETIN	Plant				Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in <i>Achillea millefolium</i> L. (Asteraceae). <i>Economic Botany</i> 48(2): 111-120, 1994.
0	2,3-DEHYDROXYDESACETOXY MATRICIN	Plant				Bisset, N.G., ed. 1994. <i>Herbal Drugs and Phytopharmaceuticals</i> . CRC Press. Boca Raton, FL. 566 pp.
2	PRUNASIN	Plant				Bisset, N.G., ed. 1994. <i>Herbal Drugs and Phytopharmaceuticals</i> . CRC Press. Boca Raton, FL. 566 pp.
39	NIACIN	Plant				--
0	DEACETYLMATRICARIN	Plant				--
0	ARABINOSE	Plant				Pedersen, M. 1987. <i>Nutritional Herbology</i> . Pederson Publishing. Bountiful, Utah. 377 pp.
2	TRANS-DEHYDROMATRICARIA-ESTER	Leaf				List, P.H. and Horhammer, L., <i>Hager's Handbuch der Pharmazeutischen Praxis</i> , Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	CEROTINIC-ACID	Plant				List, P.H. and Horhammer, L., <i>Hager's Handbuch der Pharmazeutischen Praxis</i> , Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	CAMPHERENONE	Plant		70.0		--
0	ACHILLETINE	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
0	ARTEMISIA-ALCOHOL	Leaf	1.0	80.0		--
4	MANDELIC-ACID	Plant				Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in <i>Achillea millefolium</i> L. (Asteraceae). <i>Economic Botany</i> 48(2): 111-120, 1994.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	LEUCODIN	Plant				Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
15	FOLACIN	Plant				--
62	GALLIC-ACID	Plant				Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in <i>Achillea millefolium</i> L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
4	ALPHA-PEROXYACHIFOLIDE	Plant				Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.
2	(-)-BETONICINE	Plant				Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
43	PROTOCATECHUIC-ACID	Plant				Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in <i>Achillea millefolium</i> L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
6	MYRISTIC-ACID	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	APIGENIN-GLUCOSIDE	Plant				--
6	CASTICIN	Plant				Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
7	SUCCINIC-ACID	Leaf				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
1	ACHIILLEINE	Plant				--
2	ANACYCLIN	Root				Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
2	MALTOSE	Plant				Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
23	FOLIC-ACID	Leaf				Wealth of India.
53	BETA-CAROTENE	Plant				--
0	ALPHA-PATCHOULENE	Plant		90.0		--
0	PROCHAMAZULENE	Plant				Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.
101	APIGENIN	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	THIOPHENES	Leaf		167.0		--
0	HOMOSTACHYDRINE	Plant				Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in <i>Achillea millefolium</i> L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
0	ISOSCHAFTOSIDE	Plant				Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.

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2	LUTEOLIN-7-O-GLUCOSIDE	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	BETA-HIMACHALENE	Plant		50.0		--
0	ACHICEINE	Plant				Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
11	ADENINE	Plant				Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in <i>Achillea millefolium</i> L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
4	LYSINE	Plant				Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in <i>Achillea millefolium</i> L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
5	ISOVALERIC-ACID	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
61	FERULIC-ACID	Plant				Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in <i>Achillea millefolium</i> L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
0	BENZALDEHYDECYANHYD RINGLYCOSIDE	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	ALPHA-MUROLENE	Leaf				--
0	PROAZULENE	Plant				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	MOSCHATINE	Plant				Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
0	CIS-CHRSANTHENOL	Leaf	1.0	30.0		--
0	THIOPHENES	Flower		167.0		--
0	GAMMA-CADINENE	Leaf				--
8	PHLOROGLUCINOL	Plant				Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in <i>Achillea millefolium</i> L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
0	HEPTADECANE	Plant				--
2	APIGENIN-7-O-GLUCOSIDE	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	BETA-FARNESENE	Leaf				--
0	(E)-NEROLIDOL	Leaf				--
0	ACETYLBALCHANOLIDE	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
34	SALICYLIC-ACID	Plant				Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in <i>Achillea millefolium</i> L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
0	8-ACETYLAGELOLIDE	Leaf				Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.
0	LUTEOLIN-7-O-BETA-D-GLUCOPYRANOSIDE	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
11	ISORHAMNETIN	Plant				Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in <i>Achillea millefolium</i> L. (Asteraceae). <i>Economic Botany</i> 48(2): 111-120, 1994.
13	EUCALYPTOL	Plant				Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. <i>Herbal Medicine - A Guide for Health-care Professionals</i> . The Pharmaceutical Press, London. 296pp.
0	BALCHANOLIDE	Plant				Williamson, E. M. and Evans, F. J., <i>Potter's New Cyclopaedia of Botanical Drugs and Preparations</i> , Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
2	ALPHA-HUMULENE	Leaf				--
41	TANNIC-ACID	Plant				Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in <i>Achillea millefolium</i> L. (Asteraceae). <i>Economic Botany</i> 48(2): 111-120, 1994.
6	ALPHA-THUJONE	Plant				--
31	THIAMIN	Plant				Pedersen, M. 1987. <i>Nutritional Herbology</i> . Pederson Publishing, Bountiful, Utah. 377 pp.
0	MILLEFOLIDE	Plant				Williamson, E. M. and Evans, F. J., <i>Potter's New Cyclopaedia of Botanical Drugs and Preparations</i> , Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
6	GUAIAZULENE	Plant				Williamson, E. M. and Evans, F. J., <i>Potter's New Cyclopaedia of Botanical Drugs and Preparations</i> , Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
32	HYDROQUINONE	Plant				Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in <i>Achillea millefolium</i> L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
102	CAFFEIC-ACID	Plant				--
5	BETA-ELEMENE	Leaf				--
0	(-)-VIBURNITOL	Plant				Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
0	8-ANELOOXYARTABSIN	Plant				--
2	LINOLENIC-ACID-METHYL-ESTER	Plant				Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in <i>Achillea millefolium</i> L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
3	ISOBUTYL-ACETATE	Plant				--
0	DIHYDROPARTHENOLIDE	Leaf				Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.
10	AZULENE	Leaf	0.0	8000.0		--
77	ZINC	Plant				--
3	ALPHA-CURCUMENE	Leaf				--
3	SWERTISIN	Plant				Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.
3	PONTICAEOPOXIDE	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
2	FARNESENE	Plant				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
3	CIS-DEHYDROMATRICARIA-ESTER	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	CIS-BETA-FARNESENE	Plant		110.0		--
18	TERPINEOL	Plant				--
0	PALMITIC-ACID-METHYL-ESTER	Plant				Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in Achillea millefolium L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
0	MILLEFIN	Plant				Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
7	GLUCOSE	Plant				Pedersen, M. 1987. Nutritional Heriology. Pederson Publishing, Bountiful, Utah. 377 pp.
7	HISTIDINE	Plant				Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in Achillea millefolium L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
6	BUTYRIC-ACID	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	ISOARTEMISIA-KETONE	Leaf	20.0	16000.0		Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.
0	YOMOGI-ALCOHOL	Leaf	5.0	270.0		--
0	8-ACETOXYARTABSIN	Plant				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
87	RUTIN	Plant				Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in <i>Achillea millefolium</i> L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
0	THIAMINE	Plant				--
0	LINOLEIC-ACID-METHYL-ESTER	Plant				Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in <i>Achillea millefolium</i> L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
0	ISOARTEMISIA-KETONE	Plant				--
1	DEXTROSE	Plant				Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
0	AUSTRICIN	Plant				Wealth of India.
0	ALPHA-COPAENE	Leaf				--
14	SUCROSE	Plant				Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
76	EUGENOL	Plant				Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in <i>Achillea millefolium</i> L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
0	CINEOLE	Plant				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
0	CHRSANTHENYL-ACETATE	Leaf				--
0	BALCHANOLIDE-ACETATE	Plant				Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
1	PALMITIC-ACID-ETHYL-ESTER	Plant				Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in <i>Achillea millefolium</i> L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
18	MANNITOL	Plant				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
12	GLYCINE	Plant				Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in <i>Achillea millefolium</i> L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
0	DEACETYLMATRICAIN	Leaf				--
0	VICENIN-3-SCHAFTOSIDE	Plant				Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.
0	5-HYDROXY-3,6,7,4'-TETRAMETHOXYFLAVONE	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
0	LINOLEIC-ACID-ETHYL-ESTER	Plant				Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in <i>Achillea millefolium</i> L. (Asteraceae). Economic Botany 48(2): 111-120, 1994.
6	IRON	Plant				--
0	DESACETYLMATRICIN	Leaf				Bisset, N.G., ed. 1994. Herbal Drugs and Phytopharmaceuticals. CRC Press. Boca Raton, FL. 566 pp.
2	ASPARAGINE	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	VIBURNITOL	Plant				--
0	6,10,14-TRIMETHYL-PENTADECAN-2-ONE	Plant		32.0		--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
8	STEARIC-ACID	Plant				Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. <i>Herbal Medicine - A Guide for Health-care Professionals.</i> The Pharmaceutical Press, London. 296pp.
0	PENTACOSANE	Plant				--
77	CHLOROGENIC-ACID	Plant				Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in <i>Achillea millefolium</i> L. (Asteraceae). <i>Economic Botany</i> 48(2): 111-120, 1994.
0	ASCARIDOLE-ISOMER	Leaf	5.0	335.0		--
0	OCTEN-3-OL	Leaf				--
1	GALACTOSE	Plant				Pedersen, M. 1987. <i>Nutritional Herbology.</i> Pederson Publishing. Bountiful, Utah. 377 pp.
8	GLUTAMIC-ACID	Plant				Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in <i>Achillea millefolium</i> L. (Asteraceae). <i>Economic Botany</i> 48(2): 111-120, 1994.
2	BETONICINE	Plant				Wealth of India.
17	THUJONE	Plant				--
0	VICENIN-2-SCHAFTOSIDE	Plant				Bisset, N.G., ed. 1994. <i>Herbal Drugs and Phytopharmaceuticals.</i> CRC Press. Boca Raton, FL. 566 pp.
0	2,3-DIHYDROACETOXYMATICIN	Plant				--
27	LINOLEIC-ACID	Leaf				Leung, A. Y. and Foster, S. 1995. <i>Encyclopedia of Common Natural Ingredients</i> 2nd Ed. John Wiley & Sons, New York. 649 pp.
19	INULIN	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	DELTA-4-CARENE	Leaf				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
15	TRIGONELLINE	Plant				Tunon, H., Thorsell, W., and Bohlin, L. 1993. Mosquito Repelling Activity of Compounds Occurring in <i>Achillea millefolium</i> L. (Asteraceae). <i>Economic Botany</i> 48(2): 111-120, 1994.
0	4-OXO-3,4-DIHYDRO-2,3-DIAZAPHENOXANTHIN	Plant		36.0		--
13	PALMITIC-ACID	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.